AUTHOR INDEX

Bhandiwad, R. A.: see Williams, A. C.

Bird, C. G.: On Cost Allocation for a Spanning Tree: A Game Theoretic Approach, 335

Bruno, J. and Weinberg, L.: Generalized Networks: Networks Embedded on a Matroid, Part I, 53

—— and ——: Generalized Networks: Networks Embedded on a Matroid, Part II, 231

Brown, J. R.: An Algorithm for r-Bases of a Directed Graph, 185

Dixon, E. T. and Goodman, S. E.: An Algorithm for the Longest Cycle Problem, 139

Evans, J. R.: Maximum Flow in Probabilistic Graphs—The Discrete Case, 161

Fulkerson, D. R. and Harding, G. C.: On Edge-Disjoint Branchings, 97

Gehner, K. R.: A Necessary Condition for the Existence of a Circuit of any Specified Length, 131

Geller, D. P.: Coding Graphs by Contractions, 23

Goodman, S. E.: see Dixon, E. T.

——: see Slater, P. J.

Hall, M. A.: Hydraulic Network Analysis Using (Generalized) Geometric Programming, 105

Harding, G. C.: see Fulkerson, D. R.

Hedetniemi, S. T.: see Slater, P. J.

Heyman, D. P.: A Review of "Queueing Systems, Volume 1: Theory," by Leonard Kleinrock, 189

Lee, D. H.: Low Cost Drainage Networks, 351

Lenstra, J. K. and Rinnooy Kan, A. H. G.: On General Routing Problems, 273

Orloff, C. S.: On General Routing Problems: Comments, 281

Rinnooy Kan, A. H. G.: see Lenstra, J. K.

Shier, D. R.: Iterative Methods for Determining the k Shortest Paths in a Network, 205

Slater, P. J., Goodman, S. E., and Hedetniemi, S. T.: On the Optional Hamiltonian Completion Problem, 35

AUTHOR INDEX

Tainiter, M.: A New Deterministic Network Reliability Measure, 191

Tamir, A.: On Totally Unimodular Matrices, 373

Thomas, R. E.: On Optimum Path Problems, 287

Truemper, K.: An Efficient Scaling Procedure for Gain Networks, 151

Weinberg, L.: see Bruno, J.

Wexelblat, G. B:: A Review of "Travels in Computerland or Incompatibilities and Interfaces," by Ben Ross Schneider, Jr., 285

Williams, A. C. and Bhandiwad, R. A.: A Generating Function Approach to Queueing Network Analysis of Multiprogrammed Computers, 1

Wongseelashote, A.: An Algebra for Determining all Path-Values in a Network with Application to K-Shortest-Paths Problems, 307

SUBJECT INDEX

Algebra, 307

Bases, 161
Book reviews, 189, 285
Branchings, 97

Circuits, 131, 139
Coding, 23
Computers, 1, 285
Cost, 335, 351
Cost allocation, 335
Cycles, 131, 139

Deterministic network, 191
Drainage networks, 351

Edge-disjoint branchings, 97

Flow, 161

Gain, 151
Gain networks, 151
Game theory, 335
Generalized networks, 53, 231
General routing, 273, 281
Generating functions, 1
Geometric programming, 105
Graphs, 23, 35, 97, 131, 161, 185, 273, 281, 287, 307

Hamiltonian, 35
Hydraulic networks, 105

K shortest paths, 205, 307

Longest cycles, 139

Matrices, 373
Matroids, 53, 231
Maximum flow, 161
Multiprogramming, 1

Networks, 1, 53, 105, 151, 191, 205, 231, 307, 351

Optimum paths, 287

Paths, 205, 287, 307
Probabilistic graphs, 161

Queueing, 1, 189

r-bases, 185
Reliability, 191
Reliability measure, 191
Routing, 273, 281

Scaling, 151
Shortest paths, 205, 307
Spanning tree, 335

Total unimodular, 373

Unimodular, 373

CONTENTS

Volume 6, Issues 1–4

Issue No. 1: January

A. C. Williams and R. A. Bhandiwad: A Generating Function Approach to Queueing Network Analysis of Multiprogrammed Computers 1

D. P. Geller: Coding Graphs by Contractions 23

P. J. Slater, S. E. Goodman, and S. T. Hedetniemi: On the Optional Hamiltonian Completion Problem 35

J. Bruno and L. Weinberg: Generalized Networks: Networks Embedded on a Matroid, Part I 53

Issue No. 2: April

In Memoriam: D. R. Fulkerson 95

D. R. Fulkerson and G. C. Harding: On Edge-Disjoint Branchings 97

M. A. Hall: Hydraulic Network Analysis Using (Generalized) Geometric Programming 105

K. R. Gehner: A Necessary Condition for the Existence of a Circuit of any Specified Length 131

E. T. Dixon and S. E. Goodman: An Algorithm for the Longest Cycle Problem 139

K. Truemper: An Efficient Scaling Procedure for Gain Networks 151

J. R. Evans: Maximum Flow in Probabilistic Graphs—The Discrete Case 161

J. R. Brown: An Algorithm for r-Bases of a Directed Graph 185

Book Reviews

Queueing Systems, Volume 1: Theory, by Leonard Kleinrock. Reviewed by *D. P. Heyman* 189

Issue No. 3: July

M. Tainiter: A New Deterministic Network Reliability Measure 191

D. R. Shier: Iterative Methods for Determining the k Shortest Paths in a Network 205

J. Bruno and L. Weinberg: Generalized Networks: Networks Embedded on a Matroid, Part II 231

J. K. Lenstra and A. H. G. Rinnooy Kan: On General Routing Problems 273

C. S. Orloff: On General Routing Problems: Comments 281

Book Reviews:

Travels in Computerland, or Incompatibilities and Interfaces, by Ben Ross Schneider, Jr. Reviewed by *G. B. Wexelblat* 285

Issue No. 4: October

R. E. Thomas: On Optimum Path Problems 287

A. Wongseelashote: An Algebra for Determining all Path-Values in a Network with Application to K-Shortest-Paths Problems 307

C. G. Bird: On Cost Allocation for a Spanning Tree: A Game Theoretic Approach 335

D. H. Lee: Low Cost Drainage Networks 351

A. Tamir: On Totally Unimodular Matrices 373

Author Index 383

Subject Index 385

Volume Title Page i

Volume Contents iii